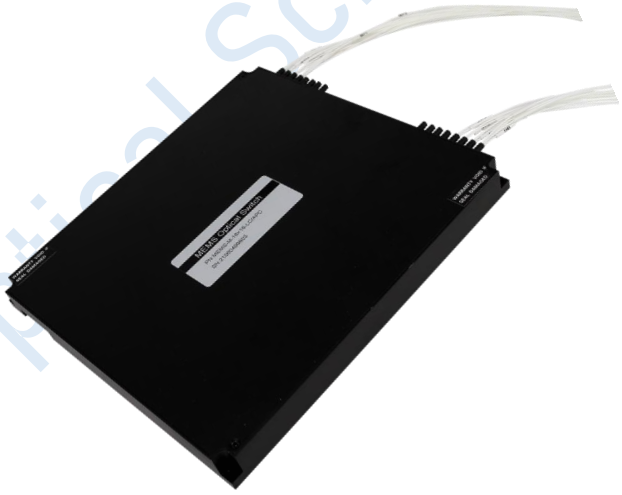
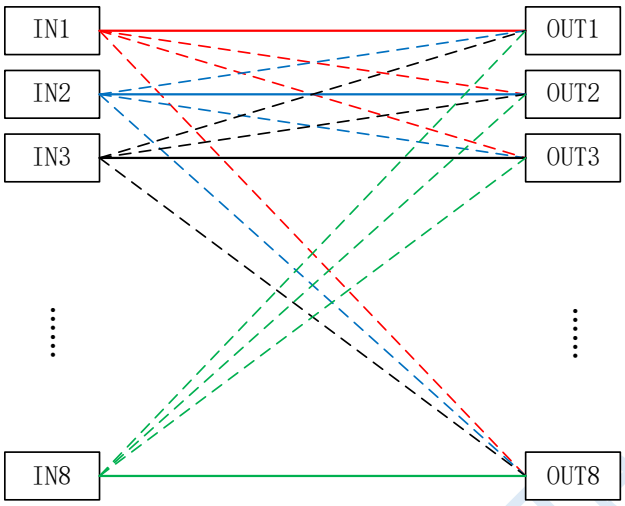
8X8 Optical Switch Module Specification

Directory

1. Schematic diagram of the optical path 2
2. Technical Parameters 2
3. Module size diagram 3
4. Pin definition 3
5. Description of programmatic instructions 4
6. Factory default configuration 5



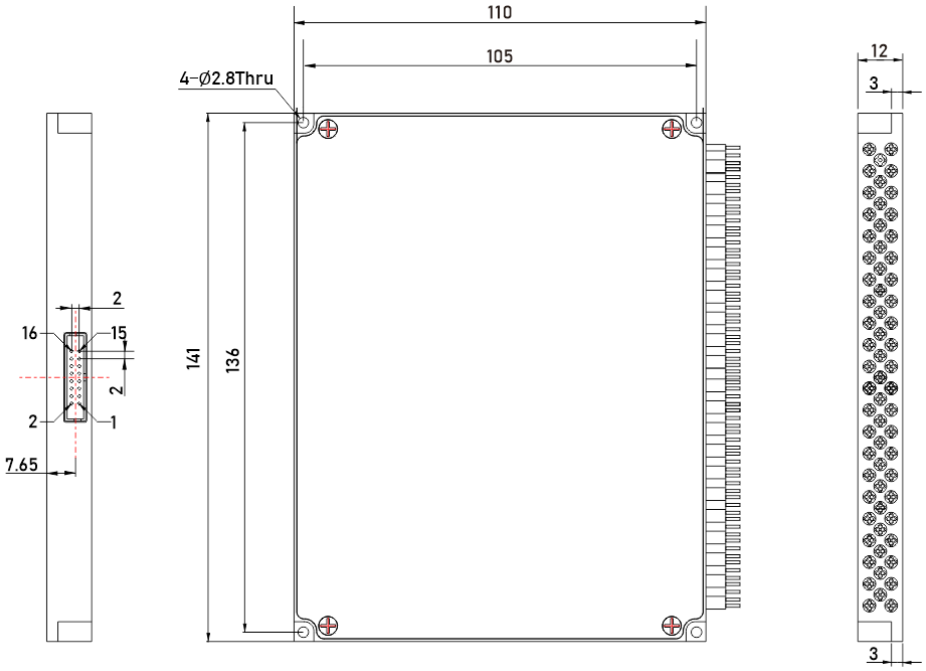
1. Schematic diagram of the optical path



2. Technical parameter

Model number	OXC-8X8-M-LC/PC
Operating wavelength	1260~1650nm
Test wavelength	1310/1550nm
Insertion loss	≤2.5dB
Reproducibility	≤±0.1dB
Return loss	≥50dB
Crosstalk	≥55dB
Switch time	≤10ms
Fiber type	SM（9/125um）
Transmit optical power	≤500mW
Service life	$\geq 10^7$
Connector form	LC/PC
Fiber length	0.5m
Monitor ports	RS232
Working power supply	5V，≤5W
Operating temperature	-5 ～ + 60℃
Storage temperature	-40 ～ + 85℃
MODULE SIZE	M5: 110×141×12mm (M+N≤16)

3. Module size diagram



4. Pin definition

Pin#	Signal name	Type	Description
1	NC	NC	NC
2	NC	NC	NC
3	VCC	Power	Power supply，DC 5V，1.0A
4	NC	NC	NC
5	NC	NC	NC
6	GND	Power	GND
7	NC	NC	NC
8	NC	NC	NC
9	TXD	Output	RS232 TX
10	RXD	Input	RS232 RX
11	NC	NC	NC
12	NC	NC	NC
13	NC	NC	NC
14	NC	NC	NC
15	NC	NC	NC

16	NC	NC	NC

Note: The module electrical interface uses MOMOLEX's 87833-1620 and the customer connector is recommended to use MOMOLEX's 87568-1694.

5. Description of programmatic instructions

This equipment can receive control signals from the computer through RS232 interface to achieve real-time monitoring.

(1) This device can only execute one instruction at a time. Usually, the program returns the corresponding value before entering the next instruction.

(2) Please use capital letters.

(3) In actual operation, enter the sharp bracket "<" as the start character and the sharp bracket ">" as the end character.

(4) Instruction error returns <ER>.

(5) When accessing through Telnet, the format is: send command carriage return, pay attention to send To be lowercase, the command to be uppercase, and there is a space between send and the command. When using the TCP debugging assistant to access through the network port or serial port, enter the command directly.

Program-controlled instruction set

command	description	example
<BAUD_x>	Set or query the baud rate of the serial port 1.x is 1~9, which indicates the baud rate of 2400, 4800, 9600, 14400, 19200, 38400, 56000, respectively 57600、115200 Successful return: <BAUD_x_OK> 2. Send <BAUD_?> query baud rate	Send: <BAUD_5> Successful return: <BAUD_5_OK> Set the device serial port baud rate to 19200 After the configuration is saved, the restart takes effect!
<RESET>	Restart the device	The serial port successfully returns the device boot information
<RESTORE>	Factory reset	The serial port successfully returns the device boot information
<INFO_?>	Query device information	Successful return: <OXC-8X8_VER1.00_SN01234567890_C10.02.00024> Indicates OSW-8X8 device, version 1.00, SN number 01234567890, product number C10.02.00024;
<OSW_A_?>	Query channel status Return: <OSW_Output channel corresponding to	Return: <OSW_05_07_01_06_03_02_08_04> The current optical path is:

	In1_Output channel corresponding to In2_ Output channel corresponding to In3_ Output channel corresponding to In4_Output channel corresponding to In5_Output channel corresponding to In6_Output channel corresponding to In7_Output channel corresponding to In8>	In1→Out5、In2→Out7、In3→Out1、In4→Out6、In5→Out3、In6→Out2、In7→Out8、In8→Out4；
<OSW_SW_a_b_c_d_e_f_g_h> (a. b, c, d, e, f, g, and h take values from 01 to 08, and the values cannot be the same. If the value is 00, no output status is displayed)	Channel switching successfully Return: <OSW_ Output channel corresponding to In1_ Output channel corresponding to In2_ Output channel corresponding to In3_ Output channel corresponding to In4_ Output channel corresponding to In5_ Output channel corresponding to In6_ Output channel corresponding to In7_ Output channel corresponding to In8_OK>	Send: <OSW_SW_05_07_01_06_03_02_08_04> Return: <OSW_SW_05_07_01_06_03_02_08_04_OK> Indicates that the optical path is set to: In1→Out5、In2→Out7、In3→Out1、In4→Out6、In5→Out3、In6→Out2、In7→Out8、In8→Out4；

6. Factory default configuration

project	Factory default configuration	remark
Serial port baud rate	115200	8 data bits, 1 stop bit, no parity.
Optical path channel	In1→Out1、In2→Out2 In3→Out3、In4→Out4 In5→Out5、In6→Out6 In7→Out7、In8→Out8	